APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/447,472	11/23/1999	JAMES B. ARMSTRONG	533/049	3863

26291	7590	07/09/2004	

MOSER, PATTERSON & SHERIDAN L.L.P.
595 SHREWSBURY AVE, STE 100
FIRST FLOOR
SHREWSBURY, NJ 07702

EXAMINER
LAMBRECHT, CHRISTOPHER M

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _4/20/2004_.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-9 and 20-24_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-9 and 19-24_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _23 November 1999_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All b)☐ Some * c)☐ None of:

　　1.☐ Certified copies of the priority documents have been received.

　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 20 April 2004 have been fully considered but they are not persuasive.

On page 10, lines 6-9 of the response, Applicants' submit that none of the claims pending in the

application are obvious under the provisions of 35 U.S.C. §103. In particular, on page 11, 2nd paragraph of

the response, Applicants submit that the combination of Ueno and Hokanson fails to teach or suggest

Applicants' invention as a whole. In particular, Applicants allege that

(a) neither Ueno nor Hokanson individually teach "each of said servers having a primary storage

partition for storing a local portion of video assets, each of said servers having a secondary

storage partition for storing at least some of a remaining portion of said video assets," as recited

in claims 1 and 19 (pp. 11-12);

(b) the combination of Ueno and Hokanson would merely disclose a centralized database server

in which content rated at a higher hierarchal level can be made available to comparatively more

clients and content rated at a lower hierarchal level can be made available to comparatively fewer

clients (pg. 12, paragraph 5, lines 1-5);

(c) the Applicants' invention provides "a decentralized server network where 'the infrequently

requested video assets are divided (decentralized) amongst each of the plurality of head-ends and

then stored on their respective secondary storage partitions" (pg. 12, paragraph 5, lines 5-9);

(d) nowhere in the cited references, either singly or in combination, is there any teaching or

suggestion that each of said servers in the interactive distribution system includes both a primary

storage partition and a secondary storage partition, where the primary storage partition stores a

first portion of video assets (such as frequently requested video assets) and the secondary storage

partition stores a remaining portion of video assets (such as infrequently requested video assets);

(e) the combined references fail to embrace the problems that Applicants' invention solves; in

particular, the problem of allowing maximum access to the video titles with minimum network

cost associated with their delivery (pg. 13, paragraph 2);

(f) dependent claims 2-9 and 20-24 depend directly or indirectly from claims 1 and 19,

respectively, and therefore fail to be obvious for at least the reasons set forth in the above

remarks regarding claims 1 and 19.

In response to (a), one cannot show nonobviousness by attacking references individually where

the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871

(CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to (b), Examiner disagrees for at least the reasons set forth in the rejections of claims

1 and 19 in the non-final Office action mailed 20 January 2004. For example, the Ueno reference clearly

teaches a plurality of servers (see 1001, 1005, 1006, fig. 10). Furthermore, as also cited in the rejection of

claims 1 and 19 of the office action, Hokanson clearly teaches moving data between a plurality of servers

(col. 9, ll. 48-51). In fact, Hokanson explicitly discloses migrating data between servers in a cluster (col.

9, ll. 51-54). Therefore, Applicants' suggestion that the combination merely (i.e., only) teaches a (i.e.,

one) centralized database server cannot possibly be based on the teachings of Ueno and Hokanson cited in

the rejections found in the Office action.

In response to (c), that the references fail to show certain features of applicant's invention, it is

noted that the features upon which applicant relies (i.e., a decentralized server network where "the

infrequently requested video assets are divided (decentralized) amongst each of the plurality of head-ends

and then stored on their respective secondary storage partitions") are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not

read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to (d), Ueno discloses a plurality of video servers (1001, 1005, 1006, fig. 10). In addition, Hokanson clearly teaches a server (132) with primary (high performing/high cost storage) and secondary (low performance/low cost) storage partitions (col. 9, lines 55-67) and a manager (142) for routing data between servers in response to client requests (col. 9, lines 48-54), and migrating data between storage partitions in response to a request rate traversing a threshold rate (a threshold is inherent in the distinction between content requested by a "large number of subscribers" and content that is "rarely" requested; see col. 11, lines 16-30), for the advantage of configuring the server resources to match consumer demand (col. 11, lines 30-40). That is, Hokanson teaches a server comprising primary and secondary storage partitions where the primary storage partition stores a first portion of video assets (such as frequently accessed video assets) and the secondary storage partition stores a remaining portion of video assets (such as infrequently requested video assets). Modifying each of the plurality of servers of Ueno to include primary and secondary storage partitions where the primary storage partition stores a first portion of video assets and the secondary storage partition stores a remaining portion of video assets, as taught by Hokanson, would have been obvious to one of ordinary skill in the art in view of the motivation explicitly provided by Hokanson, i.e., for the advantage of configuring the server resources to match consumer demand (col. 11, lines 30-40). Because Ueno teaches a plurality of servers (1001, 1005, 1006, fig. 10), what is therefore taught by the combination of Ueno and Hokanson is a plurality of servers coupled to respective subscriber equipment, each of said servers having a primary storage partition for storing a local portion of video assets, each of said servers having a secondary storage partition for storing at least some of a remaining portion of said video assets. Therefore, Examiner submits that the combination of Ueno and Hokanson, as set forth in the rejections of claims 1 and 19 in the Office action, teaches Applicants' claimed invention.

In response to (e), the holding of *In re Wright*, namely, that the improved pitch-measuring capability of a mechanical level should be considered in making a determination of obviousness over the

prior art relating thereto, is not considered relevant to the present invention regarding an interactive

information distribution system. However, even if it were, Hokanson discloses "In this manner, the

content manager effectively tunes the video resource database to match consumer demand, without

imposing undue costs. The cost/availability balance enables the content manager to make frequently

requested movies more readily available (i.e., maximum access to the video titles) at the sacrifice of

rendering rarely requested movies less readily available (col. 11, lines 30-40)." In addition, Hokanson

discloses "This balance takes into consideration the following example of factors: cost of storing content,

storage capacity, number of subscribers, server capabilities, subscriber viewing patterns, and distribution

pipeline (i.e., network cost) (col. 10, lines 64-67)." That is, Hokanson clearly embraces "the problem of

allowing maximum access to the video titles with minimum network cost associated with their delivery."

Therefore, the combination of Ueno and Hokanson does solve the problem in the manner that Applicants'

invention does. Consequently, regarding issues (d) and (e), the combination of Ueno and Hokanson

teaches Applicants' claimed invention as a whole.

In response to (f), all issues raised by Applicant with respect to claims 1 and 19 have been

addressed, and claims 1 and 19 have been shown to be obvious under the provision of 35 U.S.C. §103 and

are therefore unpatentable. Consequently, the rejections of claims 1 and 19 are hereby maintained.

Furthermore, Applicants raised no further issue with regard to claims 2-9 and 20-24, each of which

depend either directly or indirectly from, respectively, claims 1 and 19. Claims 2-9 and 20-24, therefore

remain obvious under 35 U.S.C. §103 for at least the reasons set forth in their respective rejections found

in the non-final Office action mailed 20 January 2004. Consequently, the rejections of claims 2-9 and 20-

24 are maintained.

Following are the original claims rejections (hereby maintained) found in the non-final Office

action mailed 20 January 2004 (rejections of cancelled claims omitted).

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-6, 19, 20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ueno (Ueno et al., US006438596B1) in view of Hokanson (US006094680A).

With regard to claim 1, Ueno discloses an interactive information distribution system including a

network of provider equipment (core network, 1002) and subscriber equipment (access networks, 1008 &

1009), apparatus comprising: a plurality of servers (1001, 1005, 1006) coupled to respective subscriber

equipment (STUs, 1010-1013); and a manager (combination of 1003, 1004, 1007; see col. 21, lines 44-

51), coupled to each of said plurality of servers. Ueno does not disclose each of said servers having a

primary storage partition for storing a local portion of video assets, each of said servers having a

secondary storage partition for storing at least some of a remaining portion of said video assets; and said

manager routes video assets between said servers in response to video asset requests, and migrates video

assets between storage partitions in response to a video asset request rate traversing a threshold rate.

Hokanson discloses a server (132) with primary (high performing/high cost storage) and

secondary (low performance/low cost) storage partitions (col. 9, lines 55-67) and a manager (142) for

routing data between servers in response to client requests (col. 9, lines 48-54), and migrating data

between storage partitions in response to a request rate traversing a threshold rate (a threshold is inherent in the distinction between content requested by a "large number of subscribers" and content that is "rarely" requested; see col. 11, lines 16-30), for the advantage of configuring the server resources to match consumer demand (col. 11, lines 30-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ueno to include servers having a primary storage partition, a secondary storage partition, and a manager for routing data between servers and migrating data between storage partitions in response to client requests, as taught by Hokanson, for the advantage of configuring the server resources to match consumer demand.

With regard to claim 2, Ueno and Hokanson together disclose the claimed subject matter. In particular, Hokanson discloses said manager allocates said video assets to at least one of said plurality of servers for storage on said primary partition when said asset request rate traverses said threshold rate (a threshold is inherent in the distinction between content requested by a "large number of subscribers" and content that is "rarely" requested; see col. 11, lines 16-30); and said manager stores said video assets on said secondary storage partition when said asset request rate does not traverse said threshold rate (col. 11, lines 16-30).

With regard to claim 3, Ueno and Hokanson together disclose the claimed subject matter. In particular, Ueno discloses in response to an asset request from subscriber equipment (1010), said manager (1003, 1004, 1007) distributes to said requesting subscriber equipment (1010) the requested video asset from a server storing the requested video asset (col. 19, lines 36-44).

With regard to claim 4, Ueno discloses a manager (1003, 1004, 1007) coupled to said plurality of servers (1001, 1005, 1006), said manager comprising: a stream session manager (server resources management control unit, 1003), for distributing streams of video assets to subscriber equipment requesting said video assets (col. 19, lines 49-53); and a content session manager (service control unit, 1007) for receiving asset requests from said stream session manager (col. 18, lines 58-63). Ueno does not disclose said manager comprises a content manager coupled to said plurality of servers for tracking, inventorying and administering said asset request rate and said threshold rate for each of said video assets;

Hokanson discloses a content manager (142) for tracking, inventorying and administering said asset request rate and said threshold rate for each of said video assets (col. 11, lines 9-23), for the advantage of configuring the server resources to match consumer demand (col. 11, lines 30-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ueno to include a content manager for tracking, inventorying and administering said asset request rate and said threshold rate, as taught by Hokanson, for the advantage of configuring the server resources to math consumer demands.

With regard to claim 5, Ueno and Hokanson together disclose the claimed subject matter. In particular, Ueno discloses an inter-server network (1002), coupled between each of said plurality of servers, for transmitting and receiving said video assets; and an access network (1008, 1009), coupled between each of said plurality of servers and said respective subscriber equipment, for receiving asset requests and transmitting video assets.

With regard to claim 6, Ueno and Hokanson together disclose the claimed subject matter. In particular, Ueno discloses an apparatus and corresponding method comprising: a server, identified by a manager (server resources management control unit, 1003) as storing a requested video asset, provides

said requested video asset to requesting subscriber equipment via said access network (col. 19, lines 48-53).

With regard to claim 19, Ueno discloses in an interactive information distribution system comprising: a plurality of servers (1001, 1005, 1006) coupled to respective subscriber equipment (STUs, 1010-1013), said servers providing video assets to respective subscriber equipment in response to subscriber requests and a manager (combination of 1003, 1004, 1007; see col. 21, lines 44-51). Ueno does not disclose each of said servers having a primary storage partition for storing a local portion of video assets, each of said servers having a secondary storage partition for storing at least some of a remaining portion of said video assets, determining an asset request rate for each of said video assets in the server; comparing said determined asset request rate with respective threshold rates, and in the case of video assets stored on a secondary partition having a request rate exceeding said respective threshold rate, migrating said video assets stored on said secondary partition to a corresponding primary partition.

Hokanson discloses an apparatus and corresponding method comprising: a server (132) with primary (high performing/high cost storage) and secondary (low performance/low cost) storage partitions (col. 9, lines 55-67) and a manager (142) for routing data between servers in response to client requests (col. 9, lines 48-54), and migrating data between storage partitions in response to a request rate traversing a threshold rate (a threshold is inherent in the distinction between content requested by a "large number of subscribers" and content that is "rarely" requested; see col. 11, lines 16-30); said method including the steps of determining an asset request rate for each of said video assets in the server (col. 11, lines 9-10); comparing said determined asset request rate with respective threshold rates (col. 11, lines 16-20), and in the case of video assets stored on a secondary partition having a request rate exceeding said respective threshold rate, migrating said video assets stored on said secondary partition to a corresponding primary

partition (col. 11, lines 20-30), for the advantage of configuring the server resources to match consumer demand (col. 11, lines 30-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ueno to include servers having a primary storage partition, a secondary storage partition, and a manager for routing data between servers and migrating data between storage partitions in response to client requests, as taught by Hokanson, for the advantage of configuring the server resources to match consumer demand.

With regard to claim 20, Ueno and Hokanson together disclose the claimed subject matter. In particular, Hokanson discloses an apparatus and corresponding method wherein said determined asset request rate for video assets stored in a primary storage partition being below a respective threshold rate, migrating said video assets from said primary partition to a corresponding secondary partition (a threshold is inherent in the distinction between content requested by a "large number of subscribers" and content that is "rarely" requested; see col. 11, lines 16-30).

With regard to claim 22, Ueno and Hokanson together disclose the claimed subject matter. In particular, Ueno discloses an apparatus and corresponding method comprising: a server, identified by a manager (server resources management control unit, 1003) as storing a requested video asset, provides said requested video asset to requesting subscriber equipment via said access network (col. 19, lines 48-53).

With regard to claim 23, Ueno and Hokanson together disclose the claimed subject matter. In particular, Ueno discloses said identified server is coupled directly to said requesting subscriber equipment (via channel 1019, col. 19, lines 48-53).

4.   Claims 7-9 & 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno and

Hokanson as applied to claims 6 & 23 above, and further in view of Kikinis (US006163795A).

        With regard to claims 7 and 24, Ueno and Hokanson together do not disclose said requested video

asset is provided to said access network via an intervening server.

        Kikinis discloses an apparatus and corresponding method providing a requested video asset

(stored on a remote file server, e.g., 3, 5, or 7) to an access network (41, 43, & 45) via an intervening

server (file server 1, is an intervening server in such cases where it resides between the source of a

requested video asset, e.g., remote file server 3, 5, or 7, and the access network 41, 43 & 45 of the

requesting subscriber), for the advantage of providing user access to a video asset not stored in the server

for the access network of the requesting subscriber (file server 1) (col. 4, lines 16-32).

        It would have been obvious to one of ordinary skill in the art at the time the invention was made

to modify the system of Ueno and Hokanson to include a providing a requested video asset to said access

network via an intervening server, as taught by Kikinis, for the advantage of providing user access to a

video asset not stored in said user's local server.

        With regard to claim 8, Ueno and Hokanson together disclose the claimed subject matter. In

particular, Ueno discloses said stream session manager (1003) causes transmission of said video assets

across said access network (1008, 1009) to said subscriber equipment (col. 19, lines 48-53).

With regard to claim 9, Ueno discloses a plurality of servers (1001, 1005, 1006) correspondingly linked to said subscriber equipment. Ueno does not disclose said video asset is stored on said primary partition or secondary partition.

Hokanson discloses said video asset is stored on said primary storage partition or secondary storage partition (col. 10, lines 35-45), for the advantage of configuring the server to match consumer demands (col. 11, lines 30-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ueno to include said video assets stored on said primary storage partition or secondary storage partition, as taught by Hokanson, for the advantage of configuring the server to match consumer demands.

5.   Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno and Hokanson as applied to claim 19 above, and further in view of Kenner (Kenner et al., US006269394B1).

With regard to claim 21, Hokanson discloses storing duplicates of said video assets on said primary storage partition (col. 10, lines 1-8). Ueno and Hokanson together do not disclose removing duplicates of said video assets.

Kenner discloses removing duplicate data from a storage partition (col. 12, lines 35-40), for the advantage of maximizing available storage capacity.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Ueno and Hokanson to include removing said video assets from each of said primary storage partitions, as taught by Kenner, for the advantage of maximizing available storage capacity.

Conclusion

6.   The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

on _____.
   (Date)

Typed or printed name of person signing this certificate:

_____

Signature: _____

Certificate of Transmission

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703)_____ - _____ on _____.
   (Date)

Typed or printed name of person signing this certificate:

_____

Signature: _____

        Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set

forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing

date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

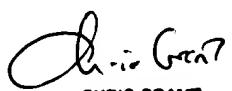MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Christopher M. Lambrecht whose telephone number is (703) 305-8710. The examiner can

normally be reached on 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the primary examiner,

Christopher Grant can be reached on (703) 305-4755. The fax phone number for the organization where

this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished applications is available

through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Christopher M. Lambrecht
Examiner
Art Unit 2611

CML

CHRIS GRANT
PRIMARY EXAMINER